

REMARKS

The present Amendment amends claims 1, 4, 6 and 12 and leaves claims 2, 3, 5 and 7-11 unchanged. Therefore, the present application has pending claims 1-12.

Applicants acknowledge the Examiner's indication in paragraph 7 of the Office Action that claims 4 and 12 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Amendments were made to claims 4 and 12 to include all the limitations of the base claim and any intervening claims. Therefore, claims 4 and 12 are allowable as indicated by the Examiner.

In the Office Action, the Examiner rejected claims 1, 2, 5, 8 and 9 under 35 USC §103(a) as being unpatentable over Mustajarvi (U.S. Patent No. 6,661,782) in view of La Porta (U.S. Patent No. 6,654,359); rejected claim 6 under 35 USC §103(a) as being unpatentable over La Porta in view alleged well-established teaching in the art; rejected claim 7 under 35 USC §103(a) as being unpatentable over La Porta, the alleged well-established teaching in art and Dynarski (U.S. Patent No. 6,272,129); and claims 3, 10 and 11 under 35 USC §103(a) as being unpatentable over Mustajarvi, La Porta and the alleged well-established teaching in art. These rejections are traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 1-3 and 5-11 are not taught or suggested by Mustajarvi, La Porta, the alleged well-established teaching in art and Dynarski whether taken individually or in combination with each

other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw these rejections.

Amendments were made to each of independent claims 1 and 6 so as to more clearly describe features of the present invention. Particularly, amendments were made to each of these claims so as to more clearly recite that the present invention is directed to a mobile IP network system, a method of switching a connection and a base controller wherein the mobile IP network system includes a plurality of radio access networks each connected to mobile stations via mobile radio links and an IP network to which a plurality of packet nodes for transferring IP packets are connected.

According to the present invention, as illustrated, for example, in Fig. 10 of the present application each of the base station controllers 7a, 7b in the radio access network 2a is connected to a plurality of packet nodes 3a, 3b through a network 104 so as to communicate with selected ones of the packet nodes 3a, 3b such that IP packets for a mobile station can be communicated to the mobile station even when the mobile station moves from a control area of the base station controller to the control area of another base station controller. According to the present invention when the mobile station moves into a control area of the base station controller from a control area of another base station controller, the base station controller selects in accordance with a communication state of the moved mobile station, either the previous packet node, through which the mobile station has been communicating IP packets, or a preliminarily designated specific packet node.

Thus, unique according to the present invention, the base station controller selectively carries out IP packet communication for the mobile station between the base station controller and the previous packet node using a previous identifier of a logical connection having been established between the previous packet node and the mobile station if the mobile station is in a busy state for communicating packets, or IP packet communication between the base station controller and the specific packet node using an identifier of a new logical connection established between the specific packet node and the mobile station is the communication of IP packets for the mobile station has ceased.

The above described features of the present invention now more clearly recited in the claims are not taught or suggested by any of the references of record whether taken individually or in combination with each other.

Mustajarvi teaches a procedure for establishing a logical link when a mobile station is connected to a new base station controller. As illustrated in Fig. 1 of Mustajarvi, each base station controller BSC1, BSC2 is connected to a dedicated serving GPRS support node (SGSN1, SGSN2) corresponding to a packet node of the present invention. As taught by Mustajarvi, in this network configuration each base station controller cannot select a desired one of a plurality of SGSNs (SGSN1 and SGSN2) in accordance with the communication state of the moved mobile station as in the present invention as recited in the claims. In Mustajarvi each base station controller BSC1 or BSC2 is directly connected to a single SGSN via a BSS-SGSN interface Gb not a network 104 as illustrated in Fig. 10 of the present invention. According to the present invention, each base station controller is able to

select anyone of the packet nodes 3a since each base station controller 7a, 7b is connected to plural packet nodes 3a and 3b via the network 104. This feature is clearly recited in the claims and as such are not taught or suggested by Mustajarvi.

Therefore, Mustajarvia fails to teach or suggest that each base station controller in the radio access network is connected to a plurality of packet nodes through a network as recited in the claims.

Further, Mustajarvi fails to teach or suggest that IP packet communication for the mobile station is selectively carried out between the base station controller and the previous packet node using a previous identifier of a logical connection having been established between the previous packet node and the mobile station or between the base station controller and the selected specific packet node using an identifier of a new logical connection established between the selected specific packet node and the mobile station depending on the communication state of the mobile station as recited in the claims.

In the Office Action, the Examiner readily admits that Mustajarvi does not explicitly disclose several features of the present invention as recited in the claims.

Particularly, the Examiner admits that Mustajarvi does not:

“explicitly disclose selecting the previous packet node...in accordance with communication state of the moved mobile station...to thereby carry out IP communication for the mobile station using a previous identifier of a logical connection having been established between the previous packet node and the mobile station”.

In order to supply the above admitted deficiency of Mustajarvi, the Examiner relies upon an alleged teaching in La Porta of this deficiency. Particularly, the

Examiner describes that La Porta teaches, for example, in Figs. 2 and 3 that a mobile device moves from a first domain to a second domain and packets are routed according to the identifier of a logical connection.

However, it is quite clear in La Porta, for example, as illustrated in Fig. 2 that each base station controller BS5-8 is connected to a single router R4-6. There is absolutely no teaching or suggestion in La Porta wherein each base station controller is connected to a plurality of packet nodes via a network so as to allow the base station controller to select IP packet communications via the previous packet node or a new selected packet node as in the present invention.

Therefore, La Porta fails to teach or suggest that each base station controller in the radio access network is connected to a plurality of packet nodes through a network as recited in the claims.

Further, La Porta fails to teach or suggest that IP packet communication for the mobile station can be selectively carried out between the base station controller and the previous packet node using a previous identifier of a logical connection having been established between the previous packet node and the mobile or between the base station controller and the selective specific packet node using an identifier of a new logical connection established between the specific packet node and the mobile station depending on the communication state of the mobile station as recited in the claims.

Since Mustajarvi and La Porta both suffer from the same deficiencies relative to the features of the present invention as now more clearly recited in the claims, combining the teachings of these references in the manner suggested by the

Examiner still fails to teach or suggest the features of the present invention as now more clearly recited in the claims. Therefore, reconsideration and withdrawal of the 35 USC §103(a) rejection of claims 1, 2, 5, 8 and 9 as being unpatentable over Mustajarvi in view of La Porta is respectfully requested.

In order to address other features recited in the claims, the Examiner refers to an alleged well-established teaching in art and Dynarsji.

With respect to the alleged well-established teaching in art, to the extent that the Examiner is taking Official Notice of particular technology this Official Notice is traversed and the Examiner is respectfully requested to supply a reference wherein such technology is disclosed.

In the Office Action, the Examiner states that such alleged well-established teaching in art provides for the purpose of utilizing an identification/identifier in a logical connection and that one skilled in the art would be motivated to provide such an identification/identifier in a logical connection since it can increase the ability to identify each connection when setting or tearing down the connection. Applicants do not agree with the Examiner's assessment and respectfully request that the Examiner supply a reference which not only supplies such motivation but also provides a teaching of the supposed modification and technology.

In any event, this alleged well-established teaching in art does not supply any of the deficiencies noted above with respect to either Mustajarvi or La Porta. Thus, combining the teachings of either one or more of Mustajarvi or La Porta with the alleged well-established teaching in art would still fail to teach or suggest the features of the present invention as now more clearly recited in the claims.

Therefore, reconsideration and withdrawal of the 35 USC §103(a) rejection of claim 6 as being unpatentable over La Porta in view of the alleged well-established in art and the 35 USC §103(a) rejection of claims 3, 10 and 11 as being unpatentable over Mustajarvi and La Porta in view of the alleged well-established teaching in art is respectfully requested.

With respect to Dynarski the Examiner relies on a teaching therein that the Examiner admits is not explicitly disclosed in La Porta. Particularly, the Examiner relies upon a teaching in Dynarski regarding the closing, upon detecting that data transmission and reception cease, the first logical connection an establishing the new logical connection. Applicants do not agree with the Examiner's assessment. In fact, there is no teaching or suggestion in Dynarski with respect to a handover to be carried out when a mobile station moves into a control area of a base station from a control area of another base station controller. Thus, Dynarski does not supply the deficiencies of La Porta as recognized by the Examiner.

Combining the teachings of Dynarski with one or more of Mustajarvi, La Porta or the alleged well-established teaching in art would still fail to teach or suggest the features of the present invention as now more clearly recited in the claims.

Therefore, reconsideration and withdrawal of the 35 USC §103(a) rejection of claim 7 as being unpatentable over La Porta, the alleged well-established teaching in art and Dynarski is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 1-3 and 5-11.

In view of the foregoing amendments and remarks, Applicants submit that claims 1-12 are in condition for allowance. Accordingly, early allowance of claims 1-12 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (520.38794X00).

Respectfully submitted,

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